Europäisches Patentamt
European Patent Office
Office européen des brevets

Bescheinigung Certificate Attestation

Die angehefteten Unterlagen stimmen mit der ursprünglich eingereichten Fassung der auf dem nächsten Blatt bezeichneten europäischen Patentanmeldung überein.

The attached documents are exact copies of the European patent application described on the following page, as originally filed.

Les documents fixés à cette attestation sont conformes à la version initialement déposée de la demande de brevet européen spécifiée à la page suivante.

Patentanmeldung Nr. Patent application No. Demande de brevet n°

02445096.7

Der Präsident des Europäischen Patentamts;
Im Auftrag

For the President of the European Patent Office

Le Président de l'Office européen des brevets
p.o.

R C van Dijk

Europäisches Patentamt
European Patent Office
Office européen des brevets

Anmeldung Nr:
Application no.: 02445096.7
Demande no:

Anmeldetag:
Date of filing: 12.07.02
Date de dépôt:

Anmelder/Applicant(s)/Demandeur(s):

Sony Ericsson Mobile Communications AB

221 88 Lund
SUEDE

Bezeichnung der Erfindung/Title of the invention/Titre de l'invention:
(Falls die Bezeichnung der Erfindung nicht angegeben ist, siehe Beschreibung.
If no title is shown please refer to the description.
Si aucun titre n'est indiqué se referer à la description.)

Active housing

In Anspruch genommene Priorität(en) / Priority(ies) claimed /Priorité(s) revendiquée(s)
Staat/Tag/Aktenzeichen/State/Date/File no./Pays/Date/Numéro de dépôt:

Internationale Patentklassifikation/International Patent Classification/
Classification internationale des brevets:

H04M1/00

Am Anmeldetag benannte Vertragstaaten/Contracting states designated at date of filing/Etats contractants désignées lors du dépôt:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

1 Name of invention

Active Housing

2 Inventor(s)

LD/SEM/NM Åke Rydgren

3 Background

There is a market need for a variety of phones with different features in different price-ranges, but more phone models leads to increased costs in development, stock, distribution, and marketing.

4 State-of-the-art

Today you would produce different phones with different features and price, e.g. a touch-screen on one phone, another phone with speakerphone, a third one with some extra buttons, and so on. The only thing that is normally possible to change for the user is the color of the housing.

5 Problem

The problem is that producing a lot of different phone models is expensive, and once the user have decided which phone to buy he is sort of stuck with that set of features.

6 Solution

The solution to this is to make front- and rear housings – shells – that are active, i.e., can contain electronics that together with the phone provides additional and/or different features.
To make this work in a reliable and cheap way, one could make the system connector in such way that all signals are accessible from the front- and rear housing, inside the phone without obstructing the system connector itself. Then, by using a small micro-controller in the housing, you would be able to communicate with the phone and do everything an accessory could do.
Examples of active housings are:

- A front housing with a touch-screen keypad that looks like a normal keypad with "buttons" (which are actually images of buttons on the touch-screen), but when you want to draw an image to send as an MMS the "buttons" goes away and you may draw with a stylus or your finger on the touch-screen (which will display your strokes as you draw).

- The same as above, but with a dynamic set of "buttons"; a few large buttons when there is no use of other buttons, many smaller buttons needed.
- A front housing with a large-enough speaker to provide handsfree s phone functionality.
- A front housing for elderly or kids with a few large buttons that have custom images and text, like "Nurse", "Daughter", "Taxi" or "Mum", " "Home". The logic in the housing would also set-up the phone in sor special way, e.g., reject all incoming messages, only allow incoming from certain numbers and so on.
- A front housing with dedicated gaming buttons and analog joystick.
- A front and rear housing that illuminates in various colors when ther incoming call/alarm/message.
- A rear housing with a good calculator.
- A rear housing with a Memory Stick reader.
- A rear housing with FM-radio/digital music player/portable handsfre winder/Bluetooth headset holder & charger/...

Well, I'd better stop now –I guess you got the picture. Oh, yes, picture:

- A rear housing with a digital camera.

7 Merits of Invention

You could change the product offering without changing the phone, just another set of housings in the kit. You would be able to target many diff market segments with only one core phone.

Maybe this patent should be a number of patents, like one for each acti housing-idea? (In which case there are more to come...)
I guess that the concept of having a full system bus connectivity betwe phone and the housing is new, and maybe the usage of the system connector. Maybe the claims should be divided into data, audio, and po connectivity between the phone's PCB and the housings.

Examples of kits for different market segmen
Kit 1 : Phone + camera shell
Kit 2 : Phone + loudspeaker
kit 3 : Phone + memory stic

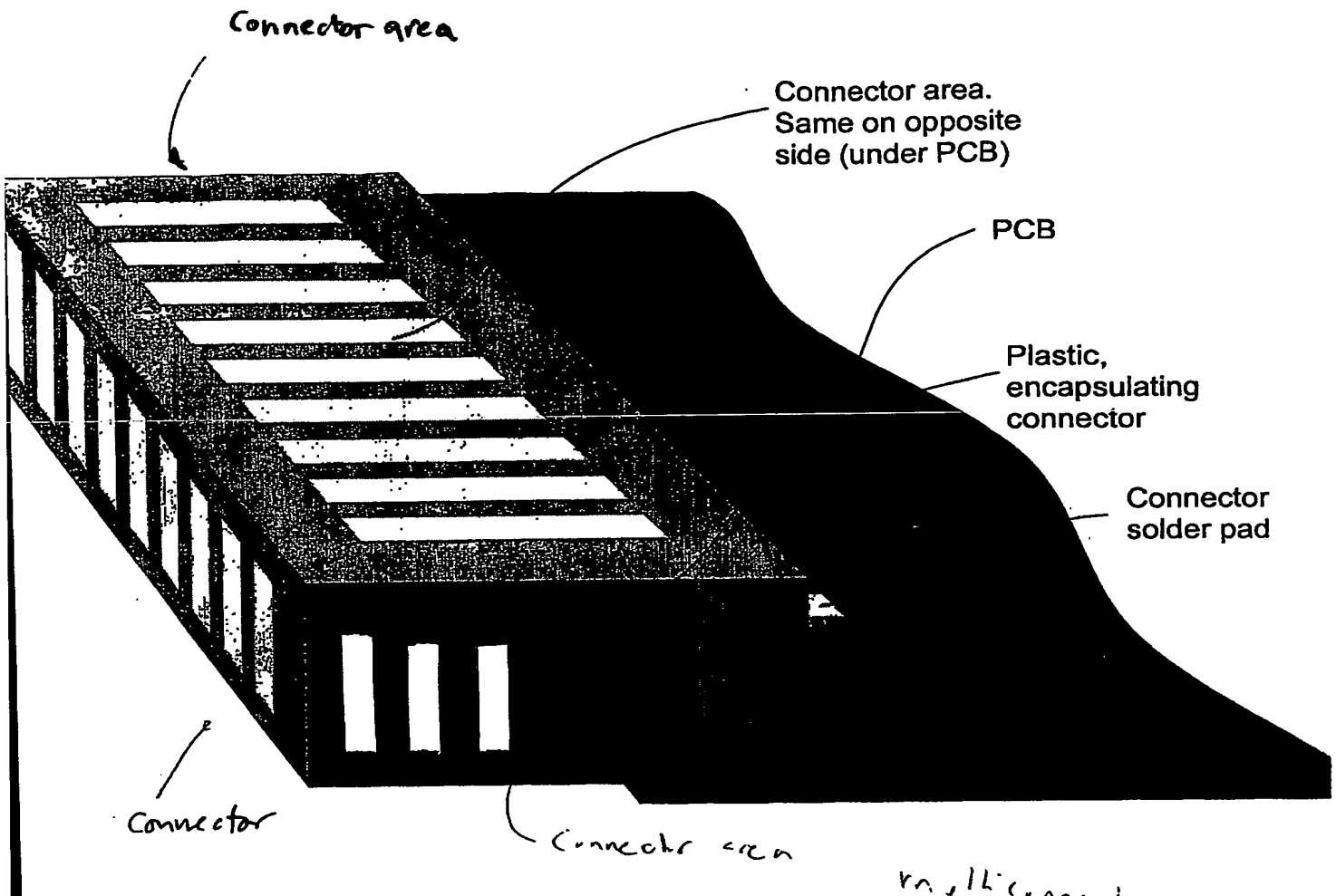
Claims

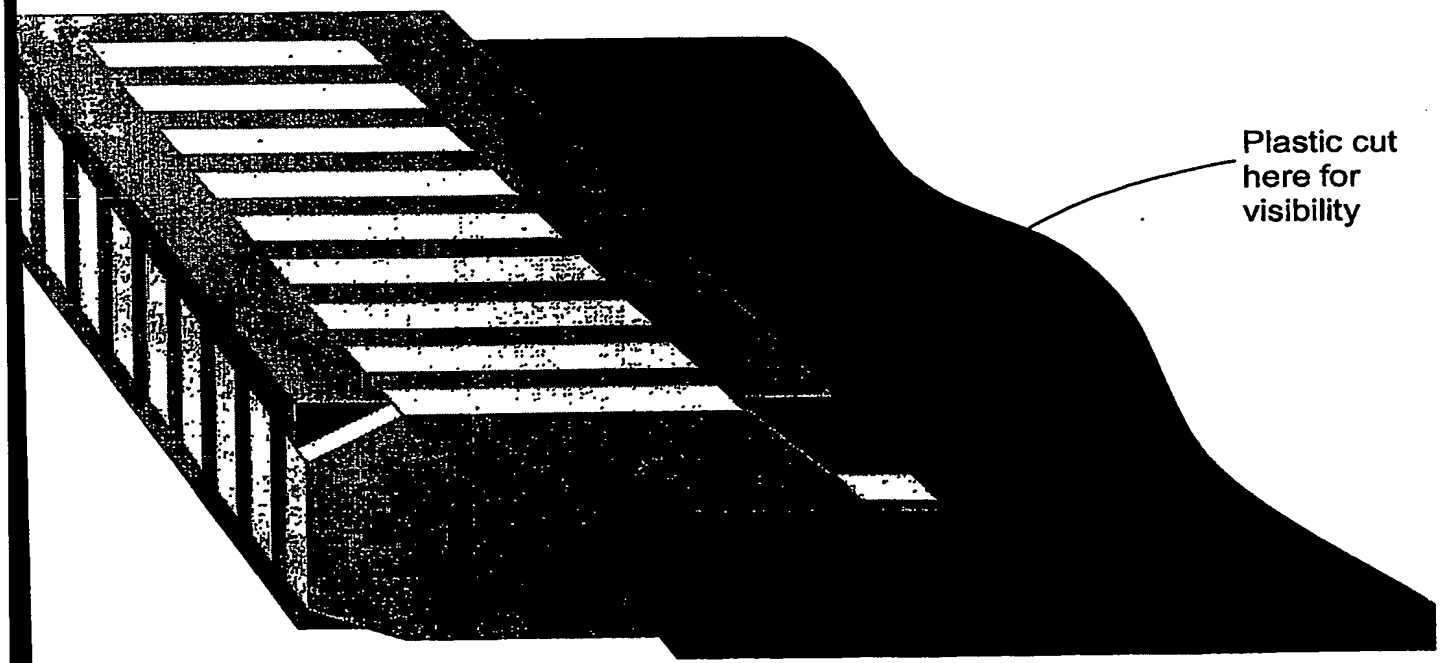
1. Communication terminal, including any of the features specified in the foregoing description and/or illustrated in the appended drawings.

2. Connector arrangement for a communication terminal, including any of the features specified in the foregoing description and/or illustrated in the appended drawings.

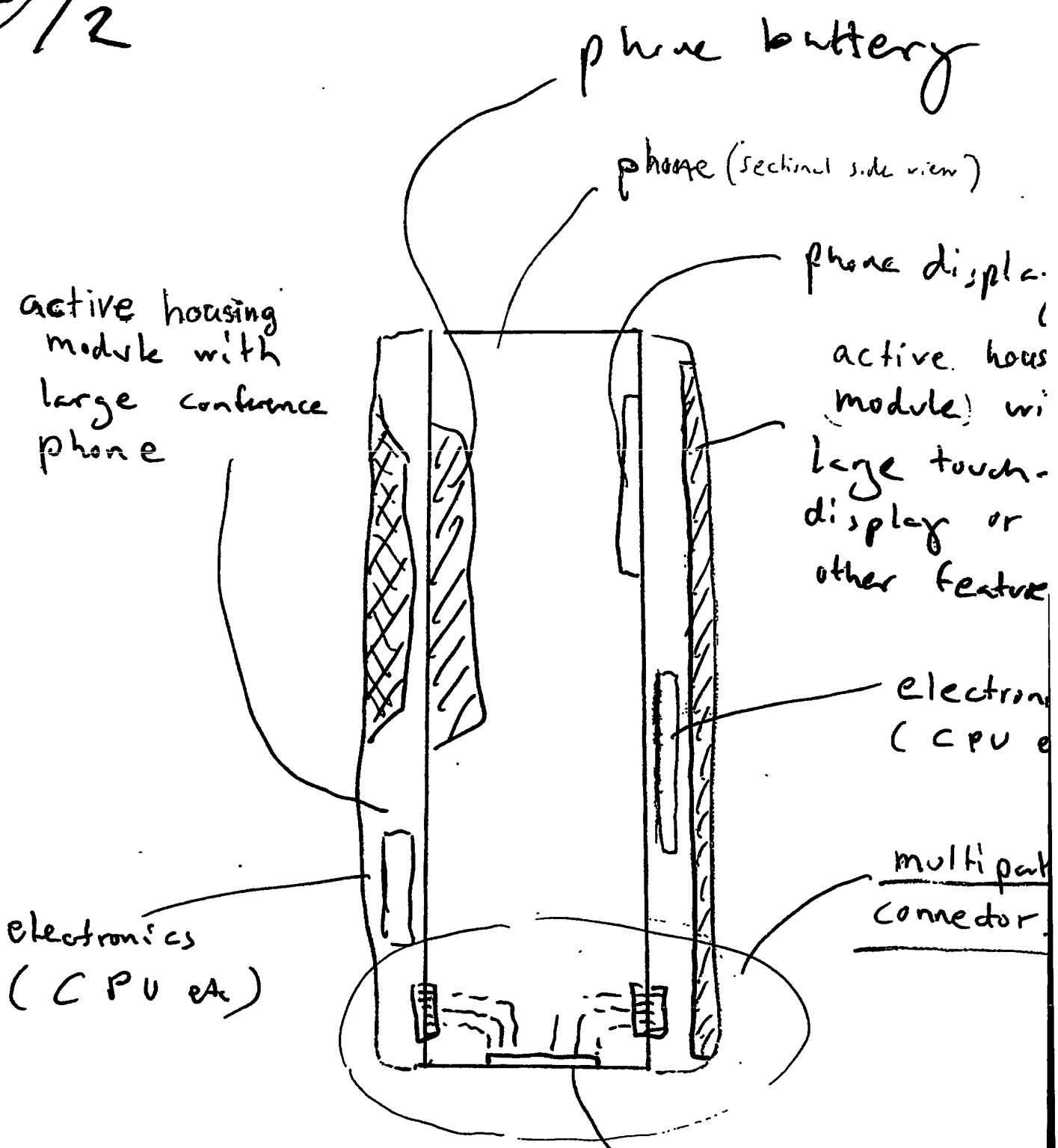
3. Active housing for a communication terminal, including any of the features specified in the foregoing description and/or illustrated in the appended drawings.

1/2





2/2



front/back modules/shells

- games
- camera
- conference phone
- alarm buttons, Worse Taxi. Mom Dad